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L2: Entry 1 of 2

File: JPAB

Jun 23, 1992

PUB-NO: JP404175226A

DOCUMENT-IDENTIFIER: JP 04175226 A

TITLE: PRODUCTION OF COMPOUND OXIDE HAVING PEROVSKITE STRUCTURE

PUBN-DATE: June 23, 1992

INVENTOR-INFORMATION:

NAME

COUNTRY

MATSUMOTO, TAIDO

HONBOU, HISAKICHI

ASSIGNEE-INFORMATION:

NAME

COUNTRY

CHISSO CORP

APPL-NO: JP02325300

APPL-DATE: November 29, 1990

INT-CL (IPC): C01G 45/00; C04B 35/00; H01M 4/86; H01M 4/88

ABSTRACT:

PURPOSE: To enable production of a perovskite-type LaMnO_3 - or $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ -based thin film having a large area and a powder composed of the same compound, having a uniform particle size and capable of sintering at a low temperature by electrolyzing a mixture solution of La-(Sr)-Mn salts using a specified voltage.

CONSTITUTION: A mixture solution [$\text{La/Mn} \geq 1$ (molar ratio)] composed of an La salt and an Mn salt is used as an electrolytic solution and electrolysis is carried out using ≥ 1.8 volt electrolytic potential (in case of using Ag/AgCl as reference electrode). In that electrolysis, a film-shaped or powder-state compound oxide is obtained by controlling its electrolysis time. The resultant compound oxide is amorphous in each case and a thin film or sintered material of LaMnO_3 having a perovskite-type structure can be obtained by sintering the above-obtained compound oxide. In the case of an $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ ($0 \leq x < 6$)-based compound oxide, an electrolytic solution having a composition of (La: Sr: Mn) = (999:1:1) - (100:900:1) (molar ratio) is electrolyzed using 2.0-2.5 volt electrolytic potential followed by heating.

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L2: Entry 2 of 2

File: DWPI

Jun 23, 1992

DERWENT-ACC-NO: 1992-256423

DERWENT-WEEK: 199231

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TITLE: Perovskite composite oxide mfr. for fuel cell anode - by
electrolysing lanthanum-manganese soln. and heating to form
lanthanum manganate

PATENT-ASSIGNEE:

ASSIGNEE

CODE

CHISSO CORP

CHCC

PRIORITY-DATA: 1990JP-0189366 (July 19, 1990), 1990JP-0028045
(February 7, 1990), 1990JP-0189365 (July 19, 1990)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP <u>04175226</u> A	June 23, 1992		010	C01G045/00

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP04175226A	November 29, 1990	1990JP-0325300	

INT-CL (IPC): C01G 45/00; C04B 35/00; H01M 4/86; H01M 4/88

ABSTRACTED-PUB-NO: JP04175226A

BASIC-ABSTRACT:

Mixt. soln. of La and Mn (where La/Mn is at least 1) or mixt.
soln. of La, Sr and Mn (where La:Sr:Mn is 999:1:1-100:900:1) is
electrolysed at 1,7V or 2.0-2.5V vs. Ag/AgCl, respectively and
heated at over 500 deg.C to form perovskite oxide of formula
LaMnO₃ or La_{1-x}Sr_xMnO₃ (where x is between 0 and 6).

USE/ADVANTAGE - Fuel cell anode.

In an example, mixt. soln. contg. La(NO₃)₃ and Mn(NO₃)₃ at La/Mn
of 100 was electrolysed at 0.5 A/cm² for 3 hrs. and heated at 800
deg.C for 5 hrs. to form LaMnO₃.

CHOSEN-DRAWING: Dwg.1/10

TITLE-TERMS: PEROVSKITE COMPOSITE OXIDE MANUFACTURE FUEL CELL
ANODE ELECTROLYTIC LANTHANUM MANGANESE SOLUTION HEAT FORM
LANTHANUM MANGANATE

DERWENT-CLASS: L03 X16

CPI-CODES: L03-E04B;

EPI-CODES: X16-E06A;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1992-114399

Non-CPI Secondary Accession Numbers: N1992-195668

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PIVALATES.USPT,PGPB.	80
\$2CVD	0
CVD.USPT,PGPB.	38306
ACVD.USPT,PGPB.	22
AACVD.USPT,PGPB.	1
EACVD.USPT,PGPB.	22
FACVD.USPT,PGPB.	4
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Refine Search:

(pivalate) and (\$2CVD or (vapor
deposition))

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<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT,PGPB	(pivalate) and (\$2CVD or (vapor deposition))	28	<u>L36</u>



USPT,PGPB	(pivalate) same (\$5diketonate or thd or acac or acetylacetonate or hfacac or hexafluoroacetylacetonate or fod)	16	L35
USPT,PGPB	(pivalate) same (trimethylacetic)	0	L34
USPT,PGPB	((MOCVD or OMCVD) or ((organometallic or (metal organic)) with (vapor deposition))) and (pivalate)	9	L33
JPAB,EPAB,DWPI,TDBD	((MOCVD or OMCVD) or ((organometallic or (metal organic)) with (vapor deposition))) and (pivalate)	0	L32
USPT,PGPB	((MOCVD or OMCVD) or ((organometallic or (metal organic)) with (vapor deposition))) and (pivalate same (\$5diketonate or thd or acac or acetylacetonate or hfacac or hexafluoroacetylacetonate or fod))	5	L31
USPT,PGPB	((metal or La or lanthanum or Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium or Mn or manganese) same pivalate same (\$5diketonate or thd or acac or acetylacetonate or hfacac or hexafluoroacetylacetonate or fod))	9	L30
USPT,PGPB	((metal or La or lanthanum or Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium) same pivalate same (\$5diketonate or thd or acac or acetylacetonate or hfacac or hexafluoroacetylacetonate or fod))	9	L29
USPT,PGPB	(oxobutanoate with pivalate)	0	L28
USPT,PGPB	L26 and ((MOCVD or OMCVD) or ((organometallic or (metal organic)) with (vapor deposition)))	6	L27
USPT,PGPB	((metal or La or lanthanum or Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium) same pivalate)	710	L26
USPT,PGPB	((metal or La or lanthanum or Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium) same (diketonate) same pivalate)	1	L25
USPT,PGPB	((MOCVD or OMCVD) or ((organometallic or (metal organic)) with (vapor deposition))) and ((metal or La or lanthanum or Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium) same (diketonate) same pivalate)	1	L24
USPT,PGPB	(GMR or CMR or magnetoresist\$4) and (manganate or LCMO or LSMO or LBMO or LMMO or ((La or lanthanum) and (Mn or manganese) and (Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium))) and L22	28	L23
	((427/569).icls. or (427/576).icls. or (427/128).icls.		

USPT,PGPB	or (427/132).icls. or (427/248.1).icls. or (427/250).icls. or (427/255.19).icls. or (427/255.28).icls. or (427/255.31).icls. or (427/255.32).icls. or (428/697).icls. or (428/694T).icls. or (428/692).icls. or (428/693).icls. or ((252/62.51R)!.ICLS.))	5522	<u>L22</u>
USPT,PGPB	(GMR or CMR or magnetoresist\$4) and (manganate or LCMO or LSMO or LBMO or LMMO or ((La or lanthanum) and (Mn or manganese) and (Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium))) and (\$2CVD or (vapor deposition))	38	<u>L21</u>
USPT,PGPB	6129862.pn.	1	<u>L20</u>
USPT,PGPB	6060420.pn.	1	<u>L19</u>
JPAB,DWPI	08130018	2	<u>L18</u>
JPAB,EPAB,DWPI,TDBD	(GMR or CMR or magnetoresist\$4) and (((A with site) or A-site) with deficien\$3)	0	<u>L17</u>
USPT,PGPB	(GMR or CMR or magnetoresist\$4) and (((A with site) or A-site) with deficien\$3)	1	<u>L16</u>
USPT,PGPB	(manganate or LCMO or LSMO or LBMO or LMMO or ((La or lanthanum) and (Mn or manganese) and (Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium))) and (((A with site) or A-site) with deficien\$3)	6	<u>L15</u>
JPAB,EPAB,DWPI,TDBD	(GMR or CMR or magnetoresist\$4) and (manganate or LCMO or LSMO or LBMO or LMMO or ((La or lanthanum) and (Mn or manganese) and (Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium)))	17	<u>L14</u>
USPT,PGPB	(GMR or CMR or magnetoresist\$4) and (manganate or LCMO or LSMO or LBMO or LMMO or ((La or lanthanum) and (Mn or manganese) and (Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium))) and ((A with site))	0	<u>L13</u>
USPT,PGPB	(GMR or CMR or magnetoresist\$4) and (manganate or LCMO or LSMO or LBMO or LMMO or ((La or lanthanum) and (Mn or manganese) and (Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium))) and ((A-site))	6	<u>L12</u>
USPT,PGPB	(GMR or CMR or magnetoresist\$4) and (manganate or LCMO or LSMO or LBMO or LMMO or ((La or lanthanum) and (Mn or manganese) and (Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium))) and ((A-site) with defici\$6)	1	<u>L11</u>
USPT,PGPB	(GMR or CMR or magnetoresist\$4) and (manganate or LCMO or LSMO or LBMO or LMMO or ((La or lanthanum) and (Mn or manganese) and (Mg or	0	<u>L10</u>

	magnesium or Ca or calcium or Sr or strontium or Ba or barium))) and (A with defici\$6)		
	(GMR or CMR or magnetoresist\$4) and (manganate or LCMO or LSMO or LBMO or LMMO or ((La or lanthanum) and (Mn or manganese) and (Mg or magnesium or Ca or calcium or Sr or strontium or Ba or barium))) and (A with site with defici\$6)	0	<u>L9</u>
USPT,PGPB	(GMR or CMR or magnetoresist\$4) and (manganate or LCMO or LSMO or LBMO or LMMO) and (A with site with defici\$6)	0	<u>L8</u>
USPT,PGPB	L6 and pivalate	0	<u>L7</u>
USPT,PGPB	5204314.pn. or 5225561.pn.	2	<u>L6</u>
USPT,PGPB	L1 and plasma	1	<u>L5</u>
USPT,PGPB	L1 and plasma	1	<u>L4</u>
USPT,PGPB	5487356.pn.	1	<u>L3</u>
JPAB,DWPI	04175226	2	<u>L2</u>
USPT	6117571.pn.	1	<u>L1</u>